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COCEVA, C., P. GIACOBBE, F. CORVI and M. STEFANON, Method of spin assignment of bound levels populated by (n, $\gamma$) reactions . . . . . **A218** (1974) 61

COCHAVI, S., A. MOALEM, D. ASHERY, J. ALSTER, G. BRUGE and A. CHAUMEAUX, Study of the (p, d) reaction on $^{95}$Mo and $^{97}$Mo . . . . . **A211** (1973) 21

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COLE, W. S., T. MO, H. R. WELLER and J. J. RAMIREZ, Elastic scattering of deuterons by $^{14}$C from $E_d$ = 4 to 10 MeV . . . . . **A213** (1973) 107

CONJEAUD, M., S. HARAR, M. CABALLERO and N. CINDRO, The (t, $\alpha$) reaction on even tellurium nuclei . . **A215** (1973) 383

CONLON, T. W., M2 isomerism in the $N$ = 123 isotones . . . . . **A212** (1973) 531

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COX, A. J., J. M. G. CARAÇA, B. SCHLENK, R. D. GILL and H. J. ROSE, Electromagnetic transitions in $^{42}$Ti **A217** (1973) 400

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CURRY, P. D. and D. W. L. SPRUNG, Hartree-Fock calculations for $A = 4n$ s-d shell nuclei using a density-dependent effective interaction . . . **A216** (1973) 125

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CUSSON, R. Y. and H. C. LEE, Nuclear structure studies of $^{20}$Ne and $^{24}$Mg in the variation-after-projection Hartree-Fock method . . . . . **A211** (1973) 429

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and A. Pantaleo, In-plane and out-of-plane angular correlation measurements for the $^{12}C(n, n'\gamma)^{12}C$ reaction at 13.9 MeV . . . . . **A212** (1973) 253
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GAUVIN, H., R. L. HAHN, B. LAGARDE, Y. LE BEYEC and M. LEFORT, Excitation functions and α-decay from compound nuclei in Ar induced reactions on $^{144}$Sm and $^{166}$Er . . . . . A220 (1974) 84
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Hashimoto, O., A. Sumi, T. Nomura, S. Nagamiya, K. Nakai, T. Yamazaki and K. Miyano, Measurement of the *g*-factor of the 0.57 ms $7^+$ state in $^{202}$Tl . . . . . A218 (1974) 180
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## 2.B *Angular distributions, correlations; polarization*

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The deformation of $^{46, 48, 50}$Ti from 104 MeV α-particle scattering, H. Revel, G. Hauser, G. W. Schweimer, G. Nowicki, W. Wiesner and D. Hartmann . . . . . **A218** (1974) 13
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Elastic scattering of electrons from the $N = 50$ isotones: $^{88}$Sr, $^{89}$Y, $^{90}$Zr and $^{92}$Mo, R. P. Singhal, S. W. Brain, C. S. Curran, T. E. Drake, W. A. Gillespie, A. Johnston and E. W. Lees . . . . . **A216** (1973) 29
The elastic scattering of $^{3}$He on $^{4}$He at medium energies, W. Fetscher, G. Seibt and Ch. Weddigen . . . . . **A216** (1973) 47
Isobaric analogue resonance studies in some rare-earth nuclei, N. H. Merrill, S. Whineray, W. M. Zuk, D. C. Weisser, C. L. Hollas and M. Borsaru . . . . . **A216** (1973) 61
Comparative analysis of pion-nucleus elastic and inelastic scattering, J. F. Germond and J. P. Amiet . . . . . **A216** (1973) 157
Polarization in the inelastic scattering of 185 MeV protons, A. Ingemarsson, E. Hagberg and H. Sherif . . . . . **A216** (1973) 271
Search for dispersive effects in electron scattering from samarium, L. S. Cardman, D. Kalinsky, J. R. Legg, R. Yen and C. K. Bockelman . . . . . **A216** (1973) 285
Electron scattering studies of $^{184}$W and $^{186}$W, D. Kalinsky, L. S. Cardman, R. Yen, J. R. Legg and C. K. Bockelman . . . . . **A216** (1973) 312
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Medium energy cluster knock-out reactions on $^{6}$Li and their interpretation in terms of distorted waves, A. K. Jain, J. Y. Grossiord, M. Chevallier, P. Gaillard, A. Guichard, M. Gusakow and J. R. Pizzi . . . . . **A216** (1973) 519
The distribution of electric multipole strength in $^{19}$F from inelastic scattering of 25 MeV $\alpha$-particles, T. P. Krick, N. M. Hintz and D. Dehnhard . . . . . **A216** (1973) 549
Nucleon channel coupling in electrodisintegration of nuclei, V. V. Balashov, S. I. Grishanova, N. M. Kabachnik, V. M. Kulikov and N. N. Titarenko . . . . . **A216** (1973) 574
Meson exchange currents in deuteron electrodisintegration, J. Hockert, D. O. Riska, M. Gari and A. Huffman . . . . . **A217** (1973) 14
Magnetic sub-state population cross sections in inelastic alpha-nucleus scattering, P. K. Glanz and G. H. Rawitscher . . . . . **A217** (1973) 299
Structure study of $^{12}$B from the elastic scattering of neutrons from $^{11}$B, C. E. Nelson, S. L. Hausladen and R. O. Lane . . . . . **A217** (1973) 546
Differential cross section and polarization for 2.63 MeV neutrons scattered from $^{12}$C, H. D. Knox, J. M. Cox, R. W. Finlay and R. O. Lane . . . . . **A217** (1973) 611
The deformation of $^{46, 48, 50}$Ti from 104 MeV $\alpha$-particle scattering, H. Rebel, G. Hauser, G. W. Schweimer, G. Nowicki, W. Wiesner and D. Hartmann . . . . . **A218** (1974) 13
Experiment and theory for the $^{2}$H(e, p)e'n reaction, K. F. Chong, M. C. Phenneger, Y. M. Shin, D. M. Skopik and E. L. Tomusiak **A218** (1974) 43
Inelastic scattering studies on $^{50}$Cr, R. J. Peterson and E. W. Stoub . **A218** (1974) 109
The elastic and inelastic scattering of 30.5 MeV protons by $^{24}$Mg, J. Eenmaa, R. K. Cole, C. N. Waddell, H. S. Sandhu and R. R. Dittman . . . . . **A218** (1974) 125
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A measurement of neutron-proton bremsstrahlung near 130 MeV, J. A. Edgington, V. J. Howard, I. M. Blair, B. E. Bonner, F. P. Brady and M. W. McNaughton . . . . . **A218** (1974) 151
The $B(E2\uparrow)$ and $R_H$ of $2_1^+$ states in $^{90}$Zr and $^{60}$Ni, R. P. Singhal, S. W. Brain, W. A. Gillespie, A. Johnston, E. W. Lees and A. G. Slight . . . . . **A218** (1974) 189
Background-resonance interference effects in knockout reactions, S. Pittel and N. Austern . . . . . **A218** (1974) 221
Noncoplanar correlation spectra from the $^2$H(p, 2p)n reaction at $E_{inc}$ = 44.9 MeV, D. L. Shannon, W. Breunlich, I. Slaus, J. W. Sunier, G. Anzelon, E. Tin, W. T. H. van Oers, M. B. Epstein and W. Ebenhöh . . . . . **A218** (1974) 381
Angular momentum dependence in 22 MeV α-particle elastic scattering by light nuclei, J. Lega and P. C. Macq . . . . . **A218** (1974) 429
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Model-independent nuclear charge densities from elastic electron scattering, I. Sick . . . . . **A218** (1974) 509
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The excitation of collective nuclear states by high energy particles, V. E. Starodubsky . . . . . **A219** (1974) 525
Charge and current distributions in elastic electron scattering by 1p shell nuclei, J. Bernabeu and J. Ros . . . . . **A220** (1974) 1
Quasi-free electron scattering from $^{12}$C using Hartree-Fock wave functions, T. Hasan and J. H. Naqvi . . . . . **A220** (1974) 114
Direct solution of the Hill-Wheeler equations for scattering states in the presence of Coulomb forces, H. Friedrich, H. Hüsken and A. Weiguny . . . . . **A220** (1974) 125
A study of excited states in $^{33}$Cl by elastic proton scattering on $^{32}$S, L. K. Fifield and A. R. Poletti . . . . . **A220** (1974) 183
Singlet deuteron effects in the (p, pn) reaction, G. V. Avakov, E. S. Belyaeva and E. I. Dolinsky . . . . . **A220** (1974) 205
Parity violation in polarized p-p scattering, M. Simonius . . . . . **A220** (1974) 269
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A comparison of the $^3$He(p, 2p)d and $^3$He(p, pd)p reactions, A. A. Cowley, P. G. Roos, H. G. Pugh, V. K. C. Cheng and R. Woody III **A220** (1974) 429
Can pion scattering yield useful nuclear structure information?, C. Wilkin . . . . . **A220** (1974) 621

## 2.N *Heavy ion reactions*

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Elastic and inelastic scattering of $^{12}C$ by $^{12}C$ in the energy range between 10 and 37.6 MeV, H. Emling, R. Nowotny, D. Pelte and G. Schrieder . . . . . A211 (1973) 600
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Finite range distorted wave Born approximation calculations including recoil for heavy ion particle transfer reactions, C. A. McMahan and W. Tobocman . . . . . A212 (1973) 465
Lithium elastic and inelastic scattering and lithium-induced single nucleon transfer reactions, P. Schumacher, N. Ueta, H. H. Duhm, K.-I. Kubo and W. J. Klages . . . . . A212 (1973) 573
The $^{12}C(^7Li, \alpha)^{15}N$ triton transfer reaction, I. Tserruya, B. Rosner and K. Bethge . . . . . A213 (1973) 22
Measurement and interpretation of heavy ion fusion excitation functions, H. H. Gutbrod, W. G. Winn and M. Blann . . . . . A213 (1973) 267
Elastic scattering of $^{32}S$ on $^{24}Mg$, $^{27}Al$ and $^{40}Ca$ and the effect of nuclear forces on the grazing collision, H. H. Gutbrod, M. Blann and W. G. Winn . . . . . A213 (1973) 285
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Four-nucleon transfer reactions among heavy ions, A. Arima, R. A. Broglia, M. Ichimura and K. Schäfer . . . . . A215 (1973) 109
Study of the $^{48}Ca(^6Li, ^6He)^{48}Sc$ reaction at 34 MeV, C. Gaarde and T. Kammuri . . . . . A215 (1973) 314
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## 3. Electromagnetic Radiation

### 3.A *Gamma radiation*

Half-life of $^{178m_2}Hf$ and its neutron capture production, R. G. Helmer and C. W. Reich . . . . . A211 (1973) 1
A theoretical study of T-violation in $^{192}Pt$, R. J. Blin-Stoyle and F. A. B. Coutinho . . . . . A211 (1973) 157
The level structure of $^{184}Os$ from $^{184}Ir$ decay and $^{183}Re(p, 2n\gamma)$ in-beam spectroscopy, R. Hochel, P. J. Daly and K. J. Hofstetter . A211 (1973) 165
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$(\gamma, \gamma')$ reactions in $^{89}Y$, $^{115}In$ and $^{197}Au$ at intermediate energies, B. Forkman, P. Janeček, G. G. Jonsson and K. Lindgren . . . . . A211 (1973) 310
Conversion-electron-gamma and gamma-gamma directional angular correlations in $^{160}Dy$, F. C. Zawislak, J. D. Rogers and E. A. Menêses . . . . . A211 (1973) 581

The decay of $^{187}$Pt: Comparison of the levels of $^{187}$Ir with those of heavier odd mass iridium isotopes, C. Sébille-Schück, M. Finger, R. Foucher, J. P. Husson, J. Jastrzebski, V. Berg, S. G. Malmskog, G. Astner, B. R. Erdal, P. Patzelt and P. Siffert . . . . . A212 (1973) 45
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Spins and mixing ratios in $^{138}$Ba, B. Singh and M. W. Johns . . . . A212 (1973) 382
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Gamma-ray multipolarity studies by the nuclear orientation of $^{206}$Bi in nickel: Perturbation in the 120 μs 2.2 MeV state of $^{206}$Pb, M. Kaplan, P. D. Johnston, P. Kittel and N. J. Stone . . . . . A212 (1973) 478
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Energy-level systematics of odd-mass lanthanum isotopes; A new coupling scheme, J. R. Leigh, K. Nakai, K. H. Maier, F. Pühlhofer, F. S. Stephens and R. M. Diamond . . . . . A213 (1973) 1
A study of the level scheme of $^{74}$As by the $^{74}$Ge(p, nγ)$^{74}$As reaction, K. Kimura . . . . . A213 (1973) 61
Lifetimes and structures of some levels above 1.5 MeV in $^{168}$Yb, $^{164}$Er and $^{158,160,162}$Dy, A. Charvet, R. Chéry, R. Duffait, M. Morgue and J. Sau . . . . . A213 (1973) 117
Das Niveauschema von $^{47}$V aus dem γ-Zerfall von Analogresonanzen, M. Schrader, K. Buchholz und H. V. Klapdor . . . . . A213 (1973) 173
The $Z$-dependence of the elastic scattering of γ-rays, F. Smend, M. Schumacher and I. Borchert . . . . . A213 (1973) 309
A new γ-ray cascade model for isomeric ratio calculations, R. L. Clarke and D. R. Gill . . . . . A213 (1973) 349
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The radiative capture of 14.1 MeV neutrons in $^{138}$Ba, W, Pb and $^{209}$Bi, M. Potokar, A. Likar, F. Cvelbar, M. Budnar and E. R. Hodgson A213 (1973) 525
Double-photon decay in $^{90}$Zr nucleus, Y. Asano and C. S. Wu . . . A215 (1973) 557
γ-ray multiplicity in $^{239}$Pu fission induced by resonance neutrons: Experimental evidence for the (n, γf) reaction, Yu. Ryabov, J. Trochon, D. Shackleton and J. Frehaut . . . . . A216 (1973) 395
The excited states of Kr and Rb isotopes in the $78 \leq A \leq 85$ mass region, R. Broda, A. Z. Hrynkiewicz, J. Styczeń and W. Waluś . . A216 (1973) 493
Niveaux de $^{234}$Pa atteints par la désintégration de $^{234}$Th, J. Godart et A. Gizon . . . . . A217 (1973) 159
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Properties of nuclear levels excited by neutron capture γ-rays from cobalt, J. Tenenbaum, R. Moreh and A. Nof . . . . . A218 (1974) 95
Lifetimes of some excited states in $^{64}$Ni, $^{66}$Zn and $^{68}$Zn, M. Ivaşcu, D. Popescu, E. Drăgulescu, V. Avrigeanu, C. Beşliu and N. Martalogu . . . . . A218 (1974) 104
Energy levels of $^{92}$Nb from $^{92}$Zr(p, nγ)$^{92}$Nb, I. Kumabe, S. Matsuki, S. Nakamura, M. Hyakutake, M. Matoba and T. Sato . . . . . A218 (1974) 201
Neutron-proton shell model multiplets in $^{88}$Y and $^{90}$Y from a study of the (α, nγ) reaction, H. W. Baer, R. L. Bunting, J. E. Glenn and J. J. Kraushaar . . . . . A218 (1974) 355
The γ-ray decay properties of low-lying levels of $^{65}$Zn via the $^{65}$Cu(p, nγ)$^{65}$Zn reaction, R. L. Ezell and H. L. Scott . . . . . A218 (1974) 470

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Electromagnetic transition probabilities in odd-mass erbium isotopes, W. Andrejtscheff, P. Manfrass, H. Prade, K. D. Schilling, G. Winter, H. Fuia, R. Ion-Mihai, A. B. Khalikulov, V. A. Morozov, N. Z. Marupov and T. M. Muminov . . . . . **A220** (1974) 438
Consequences for nuclear physics of a NN$\gamma$ and a N*N$\gamma$ time reversal violating vertex, F. A. Bezerra Coutinho . . . . . **A220** (1974) 520

### 3.C *Extranuclear effects*

Spectroscopic factors from radiative capture reactions, C. Rolfs . . . **A217** (1973) 29

## 4. Beta Decay; Parity

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Alpha-gamma reaction test of parity non-conservation in nuclear physics, M. Gari and A. H. Huffman . . . . . **A215** (1973) 532

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On the role of nuclear matrix elements in non-unique forbidden . electron capture ratios, E. Vatai . . . . . **A212** (1973) 413
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Nuclear matrix elements from L/K electron capture ratios in $^{59}$Ni decay, W. M. Chew, A. C. Xenoulis, R. W. Fink and J. J. Pinajian **A218** (1974) 372

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On the theory of auto-ionization in electron-capture decay, R. L. Intemann . . . . . **A219** (1974) 20

### 4.E *Analysis of data*

Concerning the $\beta$-decay of $^{176}$Lu, K. Komura, K. Sakamoto and S. Tanaka . . . . . **A213** (1973) 426
Internal bremsstrahlung in the unique first-forbidden electron capture decay of $^{41}$Ca, B. Mysłek, Z. Sujkowski and J. Żylicz . . . . . **A215** (1973) 79
The $\beta$-moments for the $\frac{3}{2}^-$(3.63 MeV $\beta^-$)$\frac{1}{2}^+$ transition from $^{137}$Xe and the first-forbidden $\beta^-$ decay of odd-mass $N = 83$ nuclides, L. Szybisz . . . . . **A220** (1974) 173

## 5. Alpha Decay

Decay width and final state in $\alpha$-decay, J. Schlitter . . . . . **A211** (1973) 96
Ground-state $\alpha$-decay of $N = 128$ isotones $^{216}$Ra, $^{217}$Ac and $^{218}$Th, T. Nomura, K. Hiruta, T. Inamura and M. Odera . . . . . **A217** (1973) 253

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## 6. Methods and Instruments

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### 6.B *Theoretical*

Moment methods for solving singular integral equations in scattering theory, T. A. Osborn . . . . . **A211** (1973) 211
The optimized polynomial approximation to solving integral equations: Lippmann-Schwinger equation, Y. A. Chao and A. D. Jackson . . . . . **A215** (1973) 157
A different method for solving the Hartree-Fock equations, A. Kelemen . . . . . **A220** (1974) 391

## 10. News Items

### 10.A *News item*

Another EPR fallacy, E. Breitenberger . . . . . **A211** (1973) 623

### 10.D *Book reviews*

Green, H. S. and R. B. Leipnik, Sources of plasma physics, vol. 1. . **A211** (1973) 620
Sciama, D. W., Modern cosmology . . . . . **A211** (1973) 620
Reeves, H., Nuclear reactions in stellar surfaces and their relations with stellar evolution . . . . . **A211** (1973) 620
Überall, H., Electron scattering from complex nuclei . . . . . **A211** (1973) 621
Gotsman, E., Duality and symmetry in hadron physics . . . . . **A211** (1973) 622
Sitenko, A. G., Lectures in scattering theory . . . . . **A211** (1973) 622
Emmerson, J. M., Symmetry principles in particle physics . . . . . **A211** (1973) 622
Nakanishi, N., Graph theory and Feynman integrals . . . . . **A211** (1973) 622
Morand, M., Géométrie spinorielle . . . . . **A211** (1973) 622
Irvine, J. M., Nuclear structure theory . . . . . **A211** (1973) 622
Fuller, E. G., H. M. Gerstenberg, H. vander Molen and T. C. Dunn, Photonuclear reaction data, 1973 . . . . . **A212** (1973) 627
Landolt-Börnstein, Numerical data and functional relationships in science and technology. Group I, vol. 5, parts a and b . . . . . **A212** (1973) 627
Nussenzveig, H. M., Causality and dispersion relations . . . . . **A212** (1973) 627

## 10.E *Errata*

JOHNSON, R. C. and D. C. MARTIN, The non-locality of multiple-scattering corrections to the nucleon-nucleus optical potential, Nucl. Phys. **A192** (1972) 496 . . . . . **A211** (1973) 617

ANSARI, A. and S. C. K. NAIR, Angular momentum projection approach to nuclear rotations in the rare-earth region – an illustration for $^{152}$Sm, Nucl. Phys. **A163** (1971) 56 . . . . . **A211** (1973) 618

ENGELBRECHT, C. A. and H. A. WEIDENMÜLLER, Single-particle states in nuclei, Nucl. Phys. **A184** (1972) 385 . . . . . **A211** (1973) 618

FAESSLER, A., S. KUSUNO and G. L. STROBEL, The $^{16}$O(d, $^3$He) excitation spectrum, Nucl. Phys. **A203** (1973) 513 . . . . . **A211** (1973) 618

NETHAWAY, D. R., Cross sections for several (n, 2n) reactions at 14 MeV, Nucl. Phys. **A190** (1972) 635 . . . . . **A211** (1973) 618

WILLE, U. and R. LIPPERHEIDE, Microscopic calculation of cross sections for the reactions $^{12}$C(p, 2p) and $^{16}$O(p, 2p), Nucl. Phys. **A189** (1972) 113 . . . . . **A211** (1973) 619

DECOWSKI, P., W. GROCHULSKI and A. MARCINKOWSKI, On the role of the $\gamma$-decay of unbound nuclear states in nucleon-induced reactions, Nucl. Phys. **A194** (1972) 380 . . . . . **A211** (1973) 619

DAVIS, J. R. and G. U. DIN, The $^{12}$C(d, $n_0$)$^{13}$N reaction from 3.6 to 12.0 MeV, Nucl. Phys. **A179** (1972) 101 . . . . . **A211** (1973) 619

CHEMTOB, M. and M. RHO, Meson exchange currents in nuclear weak and electromagnetic interactions, Nucl. Phys. **A163** (1971) 1 . . . **A212** (1973) 628

PIASECKI, E. and J. BŁOCKI, Polar emission: tripartition or evaporation? Nucl. Phys. **A208** (1973) 381 . . . . . **A212** (1973) 628

TERASAWA, T., M. TANIFUJI and O. MIKOSHIBA, Elastic scattering of $\alpha$-particles by $^{12}$C and the structure of $^{16}$O, Nucl. Phys. **A203** (1973) 225 . . . . . **A212** (1973) 628

BRYAN, R. A., One-meson-exchange contributions to nucleon-nucleon scattering below 400 MeV and relation to scattering at higher energies, Nucl. Phys. **A146** (1970) 359 . . . . . **A213** (1973) 628

BAYMAN, B. F. and D. H. FENG, Monte Carlo calculations to two-neutron transfer cross sections. Nucl. Phys. **A205** (1973) 513 . . . **A217** (1973) 628

SUGAWARA-TANABE, K. and K. TANABE, The yrast states on the a-symmetric rotor model. Nucl. Phys. **A208** (1973) 317 . . . . . **A217** (1973) 628

VOTAVA, H. J., T. B. CLEGG, E. J. LUDWIG and W. J. THOMPSON, Proton scattering from $^9$Be between 6 and 30 MeV and the structure of $^9$Be. Nucl. Phys. **A204** (1973) 529 . . . . . **A217** (1973) 628

BOLEU, R., Nuclei in the terminal parts of the r-process path, Nucl. Phys. **A201** (1973) 401 . . . . . **A220** (1974) 628